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November 16, 2017
Project No. P16-0122

Mr. VJ Patel
Southern Hospitality Services, LLC
Holiday Inn Express
2834 El Camino Real
Redwood City, California 94061

Subject: Proposed New Hotel
 550 Gateway Boulevard /Proposed Hotel
 South San Francisco, California
 Seismic Update

Dear Mr. Patel:

This letter provides seismic update in accordance with 2016 California Building Code (CBC) for the subject project.

2016 CBC Earthquake Design Criteria

The 2016 California Building Code (CBC) Chapter 16, Division IV- Earthquake Design- requires that structures be constructed using certain earthquake design criteria. The criteria are based in part on the seismic zone, soil profile and the proximity of the site to active seismic sources (faults). During an earthquake event, structures located very close to active faults can be subjected to near source energy motions that may be damaging to structures, if the effects of these energy motions are not considered in the structural design.

Based on the geotechnical data in this report and the selection of criteria of the 2016 CBC (Chapter 16, Division IV, Earthquake Design), a summary of the earthquake design criteria for use in the design of future structures, developments and improvements is as follows:

TABLE 1- 2016 CBC SESIMIC PARAMETERS

Parameter	Value
Site Class/Soil Profile Type	D
Site Coefficient, Fa	1.0
Site Coefficient, Fv	1.5
Mapped MCE Spectral Acceleration (0.2 sec), S_s , (g)	1.940
Mapped MCE Spectral Acceleration (1.0 sec), S_1 , (g)	0.909
MCE Spectral Acceleration (0.2 sec), S_{MS} , (g)	1.940
MCE Spectral Acceleration (1.0 sec), S_{M1} , (g)	1.363
Design Spectral Acceleration (0.2 sec), S_{DS} , (g)	1.293
Design Spectral Acceleration (0.2 sec), S_{D1} , (g)	0.909

Although the soils at the site are potentially liquefiable and based on Chapter 20 of ASCE 7, the Site Class for this site should be “F”, however, since the proposed structure has fundamental periods of vibration equal to or less than 0.5 second, site response analysis is not required to determine spectral accelerations for liquefiable soils. Rather, a site class should be determined in accordance with Section 20.3 and the corresponding values of Fa and Fv determined from Tables 11.4-1 and 11.4-2 of ASCE 7. For this site, we determined that the Site Class is “D”.

Sincerely

GeoEngineering Consultants



Kamran Ghiassi, Ph.D., P.E., G.E.
Principal Geotechnical Engineer